

SENIOR INTELLIGENT TRANSPORTATION TECHNICIAN

DISTINGUISHING FEATURES

The fundamental reason the Sr. ITS Technician exists is to provide high level electronic and technical support to the Traffic Management Center. Sets up, operates, maintains, monitors, and assists in the development of various ITS infrastructure and interfaces used by the Traffic Engineering Division in the Transportation Department. This classification does not supervise. Work is performed under general supervision of the Traffic Engineering & Operations Director. The Sr. ITS Technician is distinguished from the ITS Analyst based on the complexity of work performed and the responsibility of maintenance, troubleshooting, repair and monitoring of fiber optic, wiring, and equipment utilized for this program.

ESSENTIAL FUNCTIONS

Maintains, monitors, troubleshoots, repairs, and helps develop current and future ITS infrastructures and interfaces such as: computerized traffic signal central control systems; adaptive and responsive signal timing and control methodologies; traffic monitoring cameras; various vehicle detection technologies; telephonic, fiber optic, and microwave communications systems and devices; video switching and compression devices; variable message signs; and type 170 traffic signal controllers.

Develops, implements, and administers a preventative maintenance program for ITS facilities including; administering contracts with maintenance vendors, implementation of an as-built and blue stake program, development and documentation of an inventory and spares policy and work order system.

Monitors computerized communications between the Traffic Management Center and field components to ensure the system remains operational. Verify the integrity and location of City owned copper and fiber optic communications cables throughout the City of Scottsdale; repair, fusion splice and maintain fiber optic cables and terminations, using Optical Time Domain Reflectometers (OTDR); and troubleshoots and repairs or replaces failed wireless and cabled communication facilities as needed for optimum system performance.

Assists in the monitoring and refinement of traffic signal timing plans based on real-time traffic monitoring data and field observations. May assist emergency services with traffic control by altering traffic signal operations as conditions dictate. Adjusts traffic signal timing plans required to accommodate special events and major construction activities.

Alerts the driving public of congestion causing incidents by means of variable message signs and other telematic technologies as they become available.

Develops, assists and maintains sufficient inventory of parts to allow timely repairs. Implements the Scottsdale IS equipment inventory system.

Conducts in-field observations to test traffic signal timing programs and make travel time studies. Works with Traffic Signal Technicians to assist in installing traffic signal and other ITS equipment and to solve difficulties. Listens, investigates and responds to citizen complaints or inquiries regarding ITS operations in a timely manner.

MINIMUM QUALIFICATIONS

Knowledge, Skills, and Abilities

Knowledge of:

Traffic engineering principles, practices and procedures.

Operation, maintenance and repair of a variety of traffic communications equipment as well as the ability to operate scopes, meters OTDR's, fiber light sources and meters, T-1 telephone test equipment and remote traffic counters.

Telecommunications Network Management software and functionality.

Methods used in digital and analog traffic equipment and communications equipment.

Microsoft NT and related software programs.

Open systems hardware, software, and integration of commonly used office hardware peripherals.
Telecommunications operations and video/data transmission. Must be familiar with the local telecommunications provider, (Qwest) and equipment used to troubleshoot existing data and video communications lines.

Safe guards and security procedures and protocol.

Current ITS theories and practices and computerized traffic signal system operations.

Different systems and methods for traffic signal timing including adaptive and responsive systems.

Ability to:

Learn to troubleshoot and repair data/video communications equipment and cabling.

Read and interpret blueprints and schematic drawings.

Operate advanced and sophisticated electronic test equipment.

Evaluate technical specifications and assist in development of new specifications relating to video and data communications.

Establish and maintain effective working relationships with co-workers, supervisors, other city staff, consultants, and the general public.

Operate a computer and a variety of office equipment using continuous and repetitive arm, hand and eye coordination.

Lift and move electronic equipment up to 50 pounds.

Produce written documents with clearly organized thoughts using proper sentence construction, punctuation and grammar.

Visually distinguish the full color spectrum.

Conduct field observations, tests, installations, and repairs.

Comprehend and make inferences from written and verbal information.

Maintains regular and consistent attendance.

Education & Experience

Any combination of education and experience equivalent to a certification from an accredited technical college in engineering, military or communications provider, electronics, telecommunications, computer science or a related field and a minimum of four years experience with ITS or related systems. Must possess and maintain a valid Arizona driver's license with no major citations in the past 39 months.

FLSA Status: Non-exempt

HR Ordinance Status: Classified